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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,958	03/14/2001	Mark Earnshaw	1412.64957	3692
26123	7590	07/07/2005	EXAMINER	
BORDEN LADNER GERVAIS LLP			HOANG, THAI D	
WORLD EXCHANGE PLAZA			ART UNIT	
100 QUEEN STREET SUITE 1100			PAPER NUMBER	
OTTAWA, ON K1P 1J9			2667	
CANADA			DATE MAILED: 07/07/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,958

Applicant(s)

EARNSHAW ET AL.

Examiner

Thai D. Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 8-10, 16-20, 24-25, 31-34, 38-42, 46-50, 54, 56-59, 64-66, 70-73 and 75 is/are rejected.
- 7) ☒ Claim(s) 3-7, 11-15, 21-23, 26-30, 35-37, 43-45, 51-53, 55, 60-63, 67-69, 73 and 74 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 8-10, 16-20, 24-25, 31-34, 38-42, 46-50, 54, 56-59, 64-66, 70-73 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Miklos, US Patent No. 6621796 B1.

Regarding claims 1, 10, 24, 41 and 57, from page 3, line 8 to page 4, line 15 and figures 1-2 of the application, Applicants admit the prior art discloses: a transmitter transmits data blocks to a receiver (means for transmitting data blocks to a receiver). If one of the data blocks is missing, the receiver sends NAK message to the transmitter for requesting retransmission of the missing data block within a predetermined time delay bound (means for determining a time referenced to the transmission data blocks; means for retransmitting a data block to the receiver in response to absence of receipt, within a predetermined time determined by the means for determining of a message identifying the data block as having been successfully received). The admitted prior art does not disclose the transmitter receives messages that identify successfully received data blocks from the receiver. However, Miklos teaches a receiver sends ACK

messages that identify successfully received data blocks (S_n) to a sender, see figs. 1 and 4-6 (means for receiving messages identifying successfully received data blocks).

Regarding claims 2, 42 and 58, the admitted prior art discloses the missing data block 2 is part of a data packet, and step of retransmitting is performed before a delay bound set for the data packet (wherein the retransmitted data block is part of a data packet and said retransmitting means retransmits the data block before a delay bound set for the data packet).

Regarding claims 8, 16, 31, 47, 56 and 75, the admitted prior art discloses in figures 1-2 and pages 3-4 that the sender retransmits the missing data block based on data block sequence number (wherein said transmitting means transmits to the receiver sequentially identified data blocks and said retransmitting means is inoperative to retransmit a data block M upon said receiving means receiving a message that either: data block A has been successfully received, and $M \leq N$, or data block P has been successfully received, and $M \leq P+1$).

Regarding claims 9, 17, 32, 38-40, 46, 54, 64 and 70-72, Miklos teaches the receiver transmits to the transmitter both ACK message for successfully received data blocks and NACK message for unsuccessfully received data blocks; based on these messages, the sender retransmits the missing data blocks, see figs. 1 and 4-6 (means for receiving negative acknowledgement messages from the receiver identifying data blocks that have not been successfully received, the negative acknowledgement messages including an identification of successfully received data blocks, said means for retransmitting being responsive to receipt of a negative acknowledgement message

that a data block has not been successfully received to retransmit the data block to the receiver).

Regarding claims 18, 25, 48 and 59, since the sender in the admitted prior art could be able to retransmit the missing data blocks to the receiver; therefore, it inherently comprises a buffer to store transmitted data blocks for retransmitting the missing data blocks to the receiver (a data block storage buffer for storing copies of transmitted data blocks, said transmitter circuit obtaining, from said data block storage buffer, data blocks for retransmission).

Regarding 19-20, 33-34, 49-50 and 65-66, Miklos teaches that the sender comprises a timer to set a T_s that associates with a transmitted data block S_n , figs.1A-B, col. 7, lines 5-17 and col. 8, lines 1-4. The timer associated with the transmitted data block in the Miklos system is inherently cancelled if the data block has been successfully received because it is not necessary for monitoring the data block by that time (wherein said transmitter circuit, upon transmission of each data block to the receiver, controls said timer circuit to start an acknowledgement timer associated with the transmitted data block, and cancel the acknowledgement timer when the associated data block has been successfully received.)

Allowable Subject Matter

Claims 3-7, 11-15, 21-23, 26-30, 35-37, 43-45, 51-53, 55, 60-63, 67-69 and 73-74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-75 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 8/20/05